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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,374	02/21/2006	Katsuyuki Amano	126302	8824
25944 7590 10/26/2009 OLIFF & BERRIDGE, PLC P.O. BOX 320850 ALEXANDRIA, VA 22320-4850				
EXAMINER				
ABRAHAM, AM/AD A				
ART UNIT		PAPER NUMBER		
1791				
MAIL DATE		DELIVERY MODE		
10/26/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/563,374

Applicant(s)

AMANO ET AL.

Examiner

AMJAD ABRAHAM

Art Unit

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 11 and 20-28 is/are pending in the application.
- 4a) Of the above claim(s) 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 20-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Applicant's remarks and amendments, filed on June 19, 2009 have been carefully considered. Claims 2-10 and 12-19 have been canceled. Claims 20-28 have been added as new claims. Claims 1 and 11 have been amended. Therefore, claims 1, 11, and 20-28 are now pending.

Election/Restrictions

1. Amended claim 11 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 11 is the product that can be made from methods other than the process disclosed by way of applicant's method claims.

- a. Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 11 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Objections

1. Examiner withdraws objection to claims 8-10 (seen in office action dated February 23, 2009) due to applicant's cancellation of the claims.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. *Claims 1, 20-25, and 27-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Akatsu (JP Patent Publication 02-254013 A—Made of record by the applicant and translated by USPTO) in view of Fisher et al. (USP No. 5,544,458).*

5. Regarding claims 1 and 28, Akatsu discloses a method for manufacturing windows for vehicles that are mounted by fastening to a body panel. **(See field of invention on page 1).**

a. With respect to claims 1

i. Akatsu goes on to teach the following method comprising:

- (1) Adding members to a window pane/frame assembly. (See page 1, "claims" and "problems solved by invention")
- (2) Providing a window plate (window pane) with adhesion areas for at least a covering member (frame portion) and the stopper (holding portion). (See Page 1 claims section and figure 5 showing the stopper on top of an adhesive layer).
- (3) An adhesive applying step. (See claims on page 1).
 - (a) Wherein the adhesive is applied to molding locations to predetermined locations (molding locations) that are formed at the peripheral edge of the window plate.
 - (b) Additionally, the areas in which adhesive are to be applied include the covering member (frame portion) and the positioning member (stopper and holding portion).
Moreover, Akatsu teaches that adhesives can be applied to all molding locations other than the connecting portion. (See page 2- "effect").
- (4) A Forming step. (See page 1 – "claims", discussing resin molding operation).
- (5) Using a mold with the following cavities: (1) Covering member (frame portion) cavity, (2) Holding portion cavity, and (3) polymer material flow (connecting portion) cavity which communicate with each other. (See page 1- "claims")

(6) Polymer material (liquid resin material) is injected. (See page 1- "claims").

(7) With a step of removing the material flow connection (connection portion) after the injection molding step. (See page 1- "claims").

b. With respect to claim 1, Akatsu does not explicitly teach wherein the adhesive apply step is added continuously with a predetermined adhesion connection area including the covering member and either the positioning member or the holding portion.

c. However, Fisher teaches an injection molding method for forming structures (gaskets) onto window panel assemblies. (See abstract and column 1 lines 10-23). Fisher goes on to teach that a primer layer (adhesive layer - 46) is added onto a ceramic frit layer (30). (See figures 2-3). Fisher also teaches wherein the ceramic frit layer may cover the entire surface (26) of the window panel (22). (See figure 2 and column 5 lines 14-22). The primer layer is added via a linear path on the frit layer (3)) having a thickness of .01 to 1.0 mils. (See column 14 lines 61-64). As an example, Fisher discloses that when additional gaskets are to be molded they are added onto the primer coatings already applied to the panel in the previous primer application step. (See column 7 lines 52-55). Therefore, multiple adhesion sites are coated (adhesion applying step) in a continuous application process of applying a primer layer to a frit layer which covers the window pane assembly.

d. Akatsu and Fisher are analogous art because they are in the same field of endeavor which is injection molding sealing members onto a window pane assembly. Both Akatsu and Fisher disclose injection molding additional structures after an adhesion application step. Fisher discloses that this adhesion layer can be added by initially applying a primer layer around a window pane which will cover multiple possible gasket sites. It would have been obvious to one having the ordinary skill in the art to combine the teachings of Akatsu and Fisher for the benefit of making the adhesion application step robotic and ultimately reducing application time and thus reducing overall cycle time.

e. **Additionally regarding claim 28**

ii. Fisher teaches a robotic device which can move and position the window panel (22) in order to apply the adhesive primer. **(See column 15 lines 1-11)**. Fisher goes on to teach that the robotic device will move according to a program. **(See column 16 lines 41-65)**.

(8) It would have been obvious to one having the ordinary skill in the art to move the application head/nozzle/applicator to predetermined locations and between various adhesion areas. Having a robotic application system that works via a control program, one having the ordinary skill in the art would have the capabilities to create a procedure to apply adhesive to the areas that need it continually.

6. Regarding claim 20, Akatsu teaches wherein the positioning member (stopper) is placed into the injection molding system and a cavity for forming the holding portion is formed (stopper holder). (See figure 1 and 10).

f. (See also page 3 line 1-20).

g. (See also page 4 line 1-11).

7. Regarding claim 21, the combination of Akatsu and Fisher does not teach wherein the holding portion is formed by injection polymer material into the cavity for forming the holding portion and the method further comprises a step of attaching the positioning member to the holding portion after the forming step.

h. While Akatsu does not disclose this additional limitation, it would have been obvious to do so by one having the ordinary skill in the art because molding the positioning member as an insert simultaneously with forming the holding portion is the same as an installation after molding.

iii. Furthermore, it has been held that rearranging parts of an invention is obvious to one having the ordinary skill in the art, since it has been held that rearranging parts of an invention involves only routine skill in the art.

In re Japikse, 86 USPQ 70.

8. Regarding claim 22, Akatsu does not expressly teach wherein the positioning member is formed by injection molding polymer into a cavity for forming the positioning members.

i. However, Fisher teaches wherein additional members (gaskets) can be molded onto a window frame for sealing and support. (See abstract).

- j. It would have been obvious to one having the ordinary skill in the art to injection mold additional components such as gaskets or positioning members in order to support and seal against a window frame. Akatsu and Fisher both teach injection molding systems for molding components onto a window pane. It would have been obvious to one having the ordinary skill in the art to injection mold any known window component onto the frame.
9. Regarding claim 23, Akatsu does not expressly teach wherein, in the adhesive applying step, an application range of the adhesive applied to the predetermined adhesion area of the positioning member of the window pane and the holding portion is broader than an outer configuration of an end face of at least one of the positioning member and the holding portion at the adhesive side.
- k. However, Fisher teaches wherein the amount of primer (adhesive) being applied can be controlled between a range of .01 mils to 1.0 mils. **(See column 14 lines 61-64).**
- l. It would have been obvious to one having the ordinary skill in the art to adjust the amount of adhesive needed for any specific adhesion site.
10. Regarding claims 24-25, Akatsu does not expressly teach wherein the window pane is moved in the adhesive applying step while an applying head for applying the adhesive to the window pane is fixed to a position.
- m. However, Fisher clearly discloses that to add the primer adhesive a robotic device is needed to accurately position the window panel relative to the robotic applicator. **(See column 15 lines 8-11).**

- n. It would have been obvious to one having the ordinary skill in the art to continuously add an adhesive by either moving the pane relative to the applicator or moving the applicator relative to the pane. As these are really the only to choices, one having the ordinary skill in the art would have found either obvious.
11. Regarding claim 27, Akatsu does not expressly teach wherein at least a part of the window pane to which the adhesive is applied to is previously heated prior to the forming step.
- o. However, Fisher teaches wherein the panel and the primer are heated in order to ensure that the primer is in a transition temperature which promotes adhesion. (See figure 21 and abstract).
- p. It would have been obvious to one having the ordinary skill in the art to apply the adhesive on to the window pane at a low temperature in order to store preformed or prepared window panes prior to the injection molding operation.
12. *Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akatsu (JP Patent Publication 02-254013 A—Made of record by the applicant and translated by USPTO) in view of Fisher et al. (USP No. 5,544,458) and in further view of Yokota et al. (USP No. 5,676,898).*
13. Regarding claim 21, the combination of Akatsu and Fisher does not teach wherein the holding portion is formed by injection polymer material into the cavity for

forming the holding portion and the method further comprises a step of attaching the positioning member to the holding portion after the forming step.

q. However, Yokota teaches wherein addition components like a fixing member can be attached to a frame using double coated tape at predetermined positions. (See column 1 lines 45-50).

iv. See also figure 1 part # 21

r. It would have been obvious to one having the ordinary skill in the art to combine Yokota with the teachings of Akatsu and Fisher for the benefit of limiting the use of mold inserts in the molding system. It would have been obvious to one having the ordinary skill in the art as a routine design consideration to attach the positioning member as an insert during an injection molding procedure or after injection molding using physical or mechanical attachment.

14. *Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Akatsu (JP Patent Publication 02-254013 A—Made of record by the applicant and translated by USPTO) in view of Fisher et al. (USP No. 5,544,458) in view of Hashimoto (Japanese patent Publication JP 2002-096633—made of record by the applicant).*

15. Regarding claim 26, the combination of Akatsu and Fisher does not explicitly teach that in the forming step, a tab is formed integrally on the material flow connection portion formed by the polymer material flow cavity so as to protrude in such a direction as to depart from the back surface of the window pane.

s. However, Hashimoto discloses a connection part **(24)** which acts similar to the claimed tab as the connection part is removed from the window assembly.

(See abstract and drawings 1-6).

t. A tab formed integrally with a material flow connection and the curved connection part disclosed in Hashimoto serve the same function in substantially the same way as the purpose for both constructions is to facilitate easy removal post mold operation. Therefore, it would have been obvious for one having the ordinary skill in the art to use a tab or equivalent thereof to all for easier post mold removal of the connection part.

Response to Arguments

2. Applicant's arguments with respect to claims 1 and 20-28 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMJAD ABRAHAM whose telephone number is (571)270-7058. The examiner can normally be reached on Monday through Friday 8:00 AM to 5:00 PM Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Phillip Tucker can be reached on (571) 272-1095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AAA

/Philip C Tucker/
Supervisory Patent Examiner, Art Unit 1791